

WHAT IS CLAIMED IS:

1. An image display, comprising:
 - (a) a transparent front sheet;
 - 5 (b) a rear sheet substantially parallel to and spaced from the front sheet;
 - (c) an electrophoretic suspension substantially filling the space between the sheets, the suspension further comprising:
 - (i) an electrophoresis medium;
 - 10 (ii) non-light-scattering light absorptive particles suspended in the medium;the particles occupying a sufficiently large volume fraction of the suspension to form a thermodynamically stable agglomeration; and,
 - 15 (d) means for applying a voltage across the suspension for controllably electrophoretically moving the agglomeration as a substantially unitary whole toward an inward surface of the front sheet to frustrate total internal reflection at the inward surface of light rays passing through the front sheet.
- 20 2. An image display as defined in claim 1, wherein the particles occupy more than about a 25% volume fraction of the suspension.
- 25 3. An image display as defined in claim 1, wherein the particles occupy between about a 25% and a 75% volume fraction of the suspension.
- 30 4. An image display as defined in claim 1, the suspension further comprising a dispersant.

5. An image display as defined in claim 4, the dispersant further comprising a fluorinated oil.
- 5 6. An image display as defined in claim 4, the agglomeration compressible as a substantially unitary whole toward:
 - (a) the front sheet in response to a first applied voltage; and,
 - (b) the rear sheet in response to a second applied voltage.
- 10 7. An image display as defined in claim 6, wherein the front sheet inward surface is microstructured.
8. An image display as defined in claim 6, wherein the front sheet inward surface is prismatically microstructured.
- 15 9. An image display as defined in claim 6, wherein the front sheet inward surface further comprises a plurality of approximately hemispherical transparent hemi-beads.
- 20 10. An image display as defined in claim 6, wherein the electrophoresis medium is a perfluorinated hydrocarbon liquid.
- 25 11. An image display as defined in claim 6, wherein the means for applying a voltage further comprises a transparent first electrode on the front sheet inward surface and a second electrode on an inward surface of the rear sheet.
- 30 12. An image display as defined in claim 11, the second electrode further comprising a plurality of electrode segments, wherein application of the voltage between the first electrode and a selected one of the electrode segments establishes an electric field distinct from any electric field established by application of the

voltage between the first electrode and any of the electrode segments other than the selected segment.

13. An image display method, comprising:
 - 5 (a) positioning a transparent front sheet substantially parallel to and spaced from a rear sheet;
 - (b) suspending non-light-scattering light absorptive particles in an electrophoresis medium to create an electrophoretic suspension in which the particles occupy a sufficiently large
10 volume fraction of the suspension to form a thermodynamically stable agglomeration;
 - (c) substantially filling the space between the sheets with the electrophoretic suspension; and,
 - 15 (d) applying a voltage across the suspension for controllably electrophoretically move the agglomeration as a substantially unitary whole toward an inward surface of the front sheet to frustrate total internal reflection at the inward surface of light rays passing through the front sheet.
- 20 14. An image display method as defined in claim 13, wherein the particles occupy more than about a 25% volume fraction of the suspension.
- 25 15. An image display method as defined in claim 13, wherein the particles occupy between about a 25% and a 75% volume fraction of the suspension.
- 30 16. An image display method as defined in claim 13, further comprising adding a dispersant to the suspension.

17. An image display method as defined in claim 16, wherein the dispersant is a fluorinated oil.
18. An image display method as defined in claim 16, wherein
5 applying the voltage further comprises:
(a) applying a first voltage to compress the agglomeration as a substantially unitary whole toward the front sheet; and,
(b) applying a second voltage to compress the agglomeration as a substantially unitary whole toward the rear sheet.
- 10 19. An image display method as defined in claim 18, further comprising microstructuring the inward surface of the front sheet.
- 15 20. An image display method as defined in claim 18, further comprising prismatically microstructuring the inward surface of the front sheet.
- 20 21. An image display method as defined in claim 18, further comprising forming a plurality of approximately hemispherical transparent hemi-beads on the inward surface of the front sheet.
22. An image display method as defined in claim 18, wherein the electrophoresis medium is a perfluorinated hydrocarbon liquid.
- 25 23. An image display method as defined in claim 18, further comprising:
(a) applying a transparent first electrode to the inward surface of the front sheet;
(b) applying a second electrode to the inward surface of the
30 rear sheet;

wherein applying the voltage further comprises applying the voltage between the first and second electrodes.

24. An image display method as defined in claim 23, further
5 comprising dividing the second electrode into a plurality of
electrode segments, wherein applying the voltage further
comprises applying the voltage between the first electrode and a
selected one of the electrode segments to establish an electric
field distinct from any electric field established by applying the
10 voltage between the first electrode and any of the electrode
segments other than the selected segment.